

The Astrobiology Education Poster

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The mission of the NASA Astrobiology Institute (NAI) is to study the origin, evolution and distribution of life in the universe. Researchers begin by studying life on Earth, especially the microbial life inhabiting the extreme environments of hot springs, hydrothermal vents, and Antarctic lakes. Conditions that we think of as “extreme” on earth may be similar to what is “common” elsewhere in the solar system. Understanding how life survives in earthly extreme environments can help scientists better understand how life could exist on other planets and moons. In order to convey concepts and results of Astrobiology research to students, NAI has developed a poster for use in 7th-12th grade classrooms. The poster has a threefold approach to addressing the questions of astrobiology: What is life? Where is it? How do we find it? (1) It can be used as a visual tool. Students will see the link between Earthly extreme environments and solar system bodies just by looking at it. (2) The back of the poster contains an extended background science reading for the teacher. This narrative is meant both as a professional development experience for the teacher, as well as a source of information supporting the activities. (3) There are three standards- and inquiry- based classroom activities. They were field tested by middle and high school teachers and found to be usable within a variety of subjects, from biology to chemistry to astronomy. Web-based resources are also cited.